Extra Copy

Office Action Summary	Application No.	Applicant(s)	
	09/638,372	PAN ET AL.	
	Examiner	Art Unit	
	Gregory B Sefcheck	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-40 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-40 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 15 August 2000 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Objections

1. Claims 13, 26, and 39 are objected to because of the following informalities:

- Regarding Claims 13, 26, and 39,

The use of the term "negative filter" is inconsistent with the specification, which defines a filter that "identifies an address that is transmitting data" as a "monitoring filter" (page 29, line 11-13).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 7-10, 14-17, 20-23, 27-30, 33-36, and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Bertin et al. (US005687167A), hereafter Bertin.

- In regards to Claims 1, 7-8, 14, 20-21, 27, 33-34 and 40,

Bertin discloses a method of providing access to a resource on a network. As illustrated in Fig. 2, Bertin shows the method implemented throughout the network utilizing computer software/code (claim 14 – computer program) and computer

hardware (claim 40 - apparatus) comprising a memory and processor for storing and executing the resource providing code (claim 27 - apparatus comprising memory and processor for storing and executing code; Col. 4, lines 45-58).

Referring to Fig. 1, Bertin shows a bandwidth (resource) reservation process that involves exchanging information (installing instructions) on the network to reserve bandwidth on each device of a destination path (Fig. 1, step 103-105; Col. 13, lines 4-17; claims 1/14/27/40 - define fixed level of access to the resource; claims 7/20/33 - instructions installed on a device, resource comprises bandwidth of the device).

The bandwidth reservations (instructions) are modified to change the amount of bandwidth available (level of access to the resource) to the transit nodes that establish the connection to the end node (Fig. 1, steps 105-106; Col. 13, lines 13-20; claims 1/14/27/40 – instructions are modified to change the level of access to the resource; claims 8/21/34).

- In regards to Claims 2, 15, and 28 (instructions comprise a filter, defined by matching criteria and an action associated with a network address, installed on network device),

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Referring to Fig. 1, Bertin further shows information (filter) installed on the transit and end nodes of the network. The information is defined as providing resource access

(an action) to the node (device) associated with a selected path to a destination/network address (matching criteria; Col. 13, lines 1-17; Fig. 1, steps 102-105).

- In regards to Claims 3, 16, and 29 (instructions define level of access to a resource based on an address of a node on the network),

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Bertin further shows the information (instructions) defines the bandwidth reservation (level of access to the resource) based on the end node (destination) address of the selected path (Col. 12, line 65; Col. 13, lines 5-9).

- In regards to Claims 4, 17, and 30 (modifying instructions comprises changing the address which the instructions base the level of access to the resource),

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Bertin further shows modifying the bandwidth reservations (instructions) of the network devices when a connection request specifying another destination address is made (Col. 12, line 65; Col. 13, lines 1-17). If the reservation is permitted, the bandwidth reservations (instructions) add and/or change the network address that is allowed access to the device resources.

- In regards to Claims 9, 22, and 35 (instructions define the level of access to the resource based on a priority level of data packets being transmitted),

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Bertin further discloses providing access to resources based on the priority level of data being transmitted through the network (Abstract; Col. 3, lines 23-25; Col. 15, lines 5-7).

- In regards to Claims 10, 23, and 36 (modifying instructions comprises changing the amount of packets of particular priority that can be transmitted),

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Bertin further shows that modifying the bandwidth reservations (instructions) for data transmission of a particular priority group can be changed (Col. 16, lines 49-54).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 5-6, 11-13, 18-19, 24-26, 31-32, and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertin in view of Ellesson et al. (US006459682B1), hereafter Ellesson.

- In regards to Claims 11, 24, and 37 (priority level of the packets is defined by instructions in headers of the packets),

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above. Bertin further discloses using information in the packet header of data to be transmitted over the network.

Bertin does not expressly show that the priority level is defined as instructions in the header of data packets.

Ellesson discloses a method, apparatus and computer program implementation of controlling packet traffic (providing access to resources) in an IP network. Ellesson discloses encoding the traffic class (priority level) into the headers of the data packets to be transmitted to determine their network priority (Abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the resource access method, apparatus and program of Bertin by explicitly defining the priority level of data within the header of the data packet to be transmitted over the network, as taught by Ellesson. This modification would provide priority level information for incoming data to each transit node without requiring the

additional resources of a separate information/signaling channel between each transit node along the path to the destination address.

5. Claims 5-6, 12-13, 18-19, 25-26, 31-32, and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertin in view of Hedge (US006570875B1).

- In regards to Claims 5, 18, and 31 (modifying instructions comprises substituting a range of addresses for the address which the instructions base the level of access to the resource),

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Bertin does not expressly show substituting a range of addresses for the address which the instructions base the level of access to the resource.

Hedge discloses a method, apparatus and computer program implementation for performing multi-protocol switching and routing. Hedge shows creating and updating VLANs (instructions) based on the detection of multicast groups (range of addresses) existing among connections of a switch, thus providing a level of resource access to the groups (Abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the resource access method, apparatus and program of Bertin by allowing a range of addresses access to the resources of the network. This modification allows the transmission of data to multiple destinations without needing to

independently process the transmission to each individual address, thus utilizing system resources more efficiently.

- In regards to Claims 6, 12, 19, 25, 32, and 38,

Bertin in view of Hedge discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Bertin does not show installing a negative filter within the range of addresses in order to block an address from accessing the resources.

Hedge discloses a method, apparatus and computer program implementation for performing multi-protocol switching and routing. Hedge shows a filter (negative filter) that forbids communication between two hosts, ports, and/or applications (addresses) connected to a switch (Col. 6, lines 5-9; claims 6/19/32 - installing a negative filter to block an address from accessing resources). In this way, instead of requiring new reservation information (filters) for providing resource access to more users, the current resource reservation information (filter) can be modified to increase the number of users with resources access and effectively limit the number of filters that can be installed on the network (claims 12/25/38 - limited number of filters that can be installed on the network and the filter is modified to increase the number of users with access through the filter).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the resource access method, apparatus and program of Bertin by installing negative filters to block an address from accessing the resources of the network devices, as taught by Hedge. In this way, it is possible to limit the number of filters for specifying the addresses that are to be provided access to the resources, allowing efficient and flexible utilization of the network's resources while minimizing the cost of filter installation.

- In regards to Claims 13, 26, and 39 (installing a negative filter on a device in order to identify an address that is transmitting data),

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Bertin does not show installing a filter on a device for identifying an address that is transmitting data.

Hedge discloses a method, apparatus and computer program implementation for performing multi-protocol switching and routing. Hedge shows that the flow identification information of a transmitting packet flow is extracted (filtered) from the header of the packets by the multi-protocol switch (Col. 5, lines 47-49), thus identifying those addresses that are transmitting data through the network.

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply a filter on a network device for identifying an address that is

transmitting data through the device. This would provide information on all the addresses transmitting data through a network device, thus providing a basis for the device to make modifications to its resource access information/filters.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Ise et al. (US006643258B1) discloses a communication resource management method and node device using priority control and admission control
- Tanigawa et al. (US006483835B1) discloses a communication system with communication route retrieval and selection function
- Katsube et al. (US006341127B1) discloses a node device and method for controlling label switching path set up in inter-connected networks
- Hodgkinson et al. (US006163807A) discloses a packet network

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory B Sefcheck whose telephone number is 703-305-0633. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

GBS
11-6-2003

HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600